

Appln. No. 09/216,378
Amendment dated October 20, 2008
Reply to Office Action mailed August 18, 2008

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims (deleted text being struck through and added text being underlined):

1. (Previously Presented) A personal computer comprising:
 - a housing;
 - a microphone built into the housing for detecting ambient noise;
 - a processor integrated into the housing, the microphone being coupled to the processor;
 - a noise cancellation module operable on the processor, the noise cancellation module generating a noise cancellation signal responsive to the ambient noise detected by the microphone; and
 - a digital signal processor coupled to the noise cancellation module and configured to mix the noise cancellation signal with an audio signal provided from a desired source to output a mixed signal, the digital signal processor being connected to a standard headphone compatible audio output connection integrated on the housing such that the mixed signal is available at the audio output connection;wherein the mixed signal reproduced by headphones connected to the audio output connection reduces noise perceived by a user wearing the headphones and listening to the mixed signal through the headphones.
2. (Previously Presented) The personal computer of claim 1 further comprising an optical disc drive integrated into the housing of the computer, the optical disc drive being configured to playback media to provide the audio signal to the digital signal processor.

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3. (Previously Presented) The personal computer of claim 1 wherein the noise cancellation module comprises a software program running on a processor.

4. (Previously Presented) The personal computer of claim 3 wherein the processor is the central processing unit for the computer system.

5. (Previously Presented) The personal computer of claim 1 wherein the digital signal processor is located on a sound board integrated into the housing.

6. (Cancelled)

7. (Previously Presented) The personal computer of claim 1 wherein the computer system is a mobile computer.

8. (Previously Presented) A method of reducing ambient noise normally heard by a user through headphones when listening to audio provided via a mobile computer system, comprising:

detecting the ambient noise through a microphone built-in to a case of the mobile computer system;

generating a noise cancellation signal based on the detected ambient noise; and

mixing the noise cancellation signal with an audio signal from an audio source on the mobile computer;

supplying the mixed signal to a standard headphone compatible audio output connection on the case of the mobile computer system such that the mixed signal is available at the audio output connection;

wherein the mixed signal reproduced by headphones connected to the audio output connection reduces the ambient noise perceived by a user wearing the headphones and listening to the mixed signal through the headphones.

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9. (Original) The method of claim 8 and further comprising converting the detected ambient noise to an electrical signal.

10. (Previously Presented) The method of claim 8 wherein generating the noise cancellation signal is performed by a processor of the mobile computer system, and mixing the noise cancellation signal is performed by a sound card of the mobile computing system that is connected to the standard headphone compatible audio output connection of the mobile computer system.

11. (Previously Presented) The method of claim 8 wherein generation of the noise cancellation signal is performed when an optical disc drive of the mobile computer system is active.

12. (Original) The method of claim 8 wherein generation of the noise cancellation signal is initiated manually via a software interface.

13. (Previously Presented) A machine readable medium having machine readable instructions stored thereon for causing a computer to perform the steps comprising:

detecting environmental background noise through a microphone integrated into a case of the computer;

converting the detected environmental background noise into an electrical signal;

generating a noise cancellation signal based on the electrical signal by a microprocessor integrated into the computer; and

mixing the noise cancellation signal with an audio signal provided by an application program operating on the computer or a device integrated into the computer; and

directing the mixed audio signal to a standard headphone compatible audio output connection on the case of the computer such that the mixed signal is available at the audio output connection;

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wherein the mixed signal reproduced by headphones connected to the audio output connection reduces noise perceived by a user wearing the headphones and listening to the mixed signal through the headphones.

14. (Previously Presented) The machine readable medium of claim 13 wherein the step of generating a noise cancellation signal is initiated and performed automatically when an optical disc drive of the computer is active and producing the audio signal.

15. (Original) The machine readable medium of claim 13 wherein the step of generating a noise cancellation signal is activated through a software interface.

16. (Previously Presented) A personal computer comprising:
a portable housing;
a microprocessor integrated into the housing;
memory integrated into the housing and coupled to the microprocessor,
a storage device integrated into the housing and coupled to the microprocessor;

an audio source integrated into the housing and configured to produce an audio signal;

a microphone integrated into the housing and capable of detecting noise ambient to the housing, the microphone being coupled to the microprocessor to provide a signal to the microprocessor corresponding to a level of the ambient noise level;

a noise cancellation module operating on the microprocessor to generate a noise cancellation signal responsive to the signal corresponding to the level of detected ambient noise; and

a digital signal processor configured to mix the noise cancellation signal with the audio signal provided from the audio source integrated into the housing to output a mixed signal, the digital signal processor being connected to a standard headphone compatible audio output connection on

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the housing of the mobile computer system such that the mixed signal is available at the audio output connection;

wherein the mixed signal reproduced by headphones connected to the audio output connection reduces noise perceived by a user wearing the headphones and listening to the mixed signal through the headphones

17. (Previously Presented) The personal computer of claim 16 and further comprising a display device integrated into the housing.

18. through 20. (Cancelled)

21. (Previously Presented) The personal computer of claim 1 wherein the audio source comprises an optical disc player.

22. through 38. (Cancelled)

39. (Previously Presented) The personal computer of claim 1 wherein the mixed audio signal and noise cancellation signal are further directed to a speaker integrated into the case of the computer.

40. (Previously Presented) The machine readable medium of claim 13 wherein the mixing of the audio signal and noise cancellation signal is performed by a processor integrated into the case of the computer.

41. (Previously Presented) A personal computer system with integrated noise reduction, comprising:

a personal computer housing;

a processor integrated into the housing;

an audio source integrated into the housing and configured to produce an audio signal, the audio source including an optical disc drive configured to playback media to provide the audio signal;

a microphone integrated into the housing and capable of detecting noise ambient to the housing, the microphone being coupled to the

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microprocessor to provide a signal to the processor corresponding to an ambient noise level;

a noise cancellation module operable on the processor, the noise cancellation module generating a noise cancellation signal responsive to the signal from the microphone corresponding to the ambient noise level; and

a digital signal processor coupled to the noise cancellation module and configured to mix the noise cancellation signal with an audio signal provided from a desired source to output a mixed signal, the digital signal processor being connected to a standard headphone compatible audio output connection integrated on the housing such that the mixed signal is available at the audio output connection;

wherein the mixed signal reproduced by headphones connected to the audio output connection reduces noise perceived by a user wearing the headphones and listening to the mixed signal through the headphones.

42. (Cancelled)

43. (Previously Presented) The system of claim 41 wherein the noise cancellation module comprises a software program running on a processor.

44. (Previously Presented) The system of claim 41 wherein the processor is the central processing unit for the computer system.

45. (Previously Presented) The system of claim 41 wherein the digital signal processor is located on a sound card integrated into the housing